

IN THE CLAIMS

Replace the claims with the following rewritten listing:

1-14. (Cancelled)

15. (Currently Amended) An intervertebral disc prosthesis comprising:

two plate-shaped or cup-shaped rigid half-shells, each of the half shells being configured to be fixed to one of two vertebrae adjacent to an intervertebral disc to be replaced, the two rigid half-shells being disposed on respective sides of a compression pad and ~~secured~~affixed thereto; and

a first of said two half shells comprising, in a central zone thereof, a hollow shaft oriented toward a second of said two half shells, the second half-shell comprising, in ~~its~~a central zone thereof, a stud oriented toward the first half-shell and penetrating into the hollow shaft, the compression pad including a core portion operatively engaged between and in contact with the hollow shaft and the stud, and an outer ring portion disposed outwardly of the core portion and of the hollow shaft, wherein the outer ring portion comprises a first surface and a second surface opposed to the first surface, the first and second surfaces of the outer ring portion being respectively affixed to inner surfaces of the two half-shells.

16. (Cancelled).

17. (Currently Amended) The prosthesis as claimed in claim ~~15~~15, wherein the outer ring portion of the compression pad is harder than the core portion of the compression pad.

18. (Currently Amended) The prosthesis as claimed in claim ~~15~~15, wherein the core portion is cup-shaped.

19. (Currently Amended) The prosthesis as claimed in claim ~~15~~15, wherein said compression

pad includes another portion disposed between a free end of the hollow shaft and the second half-shell

20. (Currently Amended) The prosthesis as claimed in claim ~~16~~15, wherein the hollow shaft and the stud define an interior space between them, and wherein the core portion fills~~filling~~ the interior space defined between the hollow shaft and the stud.

21. (Cancelled)

22. (Currently Amended) The prosthesis as claimed in claim ~~16~~15, wherein the outer ring portion has a Shore A hardness of between 60 and 100.

23. (Currently Amended) The prosthesis as claimed in claim ~~16~~15, wherein the core portion has a Shore A hardness of between 25 and 30.

24. (Previously Presented) The prosthesis as claimed in claim 17, wherein the outer ring portion is made of a polycarbonate urethane type material.

25. (New) The prosthesis as claimed in claim 16, wherein the core portion is made of a two-component silicone elastomer crosslinked at ambient temperature, and an encapsulating copolymer whose blowing agent is isobutane.

26-27. (Cancelled)

28. (Previously Presented) The prosthesis as claimed in claim 15, wherein the two half-shells are made of a titanium-based alloy.

29. (Previously Presented) The prosthesis as claimed in claim 15, wherein each half-shell comprises, on an outer face, pointed portions intended to promote its primary fixation to a vertebra.

30. (Previously Presented) The prosthesis as claimed in claim 15, wherein each half-shell comprises, on an inner face, lugs for attachment of the compression pad.
31. (Previously Presented) The prosthesis as claimed in claim 15, wherein the stud is threadedly engaged in a through-hole in the second half-shell.
32. (Previously Presented) The prosthesis as claimed in claim 15, wherein the stud and the shaft have trapezoidal cross sections.
33. (Previously Presented) The prosthesis as claimed in claim 15, wherein the stud and the shaft have non-circular cross sections.
34. (Previously Presented) The prosthesis as claimed in claim 15, wherein outer surfaces of the half-shells comprise a coating for secondary osseous fixation.
35. (Previously Presented) The prosthesis as claimed in claim 15, wherein the compressible pad is also secured to the hollow shaft and the stud.
36. (Currently Amended) An intervertebral disc prosthesis comprising:
two plate-shaped or cup-shaped rigid half-shells, each of the half shells being configured to be fixed to one of two vertebrae adjacent to an intervertebral disc to be replaced, the two rigid half-shells being disposed on respective sides of a compression pad and ~~secured~~affixed thereto; and
a first of said two half shells comprising, in a central zone thereof, a hollow shaft oriented toward a second of said two half shells, the second half-shell comprising, in ~~its~~a central zone thereof, a stud oriented toward the first half-shell and penetrating into the hollow shaft, the compression pad including a core portion operatively engaged between and in contact with the hollow shaft and the stud and an outer ring portion disposed operatively outwardly of the core portion and of the hollow shaft, wherein the outer ring

portion comprises a first surface and a second surface opposed to the first surface, the first and second surfaces of the outer ring portion being respectively affixed to inner surfaces of the two half-shells, wherein the core portion of the compression pad comprises a first material and the outer ring portion of the compression pad comprises a second material, the second material being harder than the first material and being a polycarbonate urethane type material.

37. (Withdrawn)

38. (New) The prosthesis as claimed in claim 15, wherein the first and second surfaces of the outer ring portion are respectively affixed to inner surfaces of the two half-shells via a mechanical fastener.

39. (New) The prosthesis as claimed in claim 15, wherein the central zones of the two half shells are each defined by perimetric extents that are closer to a relative midpoint of each respective half shell than any edge of each respective half shell.